[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [63 FR 6629 NO. 27 02/10/98]

[Docket No. 96-CE-35-AD; Amendment 39-10213; AD 97-24-06]

RIN 2120-AA64

Airworthiness Directives; Glasflugel Models Standard Libelle and Standard Libelle 201 B Sailplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to Glasflugel Models Standard Libelle and Standard Libelle 201 B sailplanes. This action requires inspecting the aileron operating lever's actuating shaft welded seams for cracks; modifying or replacing the actuating shaft, if cracked; and, if no cracks are found, eventually modifying or replacing the shaft. Cracks found in the welded seams of the actuating shaft prompted this action. The actions specified by this AD are intended to prevent cracks in the aileron operating lever's actuating shaft welded seams, which, if not detected and corrected, could cause loss of control of the sailplane.

DATES: Effective March 13, 1998.

ADDRESSES: Service information that pertains to this AD may be obtained from Glasflugel, c/o H. Streifeneder, Glasfaser-Flugzeug Service GmbH, Hofener Weg, D-72582 Grabenstetten, Germany. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket 96-CE-35-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: Mr. J. Mike Kiesov, Project Officer, Sailplanes, FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone (816) 426-6932, facsimile (816) 426-2169.

SUPPLEMENTARY INFORMATION:

Events Leading to the Issuance of This AD

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to Glasflugel Models Standard Libelle and Standard Libelle 201 B Sailplanes was published in the **Federal Register** on December 10, 1996 (61 FR 65006). The action proposed to require inspecting the aileron operating lever's actuating shaft welded seams for cracks. If cracks are found, the proposal specifies repairing and modifying, or replacing the actuating shaft. If no cracks are found, the actuating shaft would be modified or replaced at a later time. Accomplishment of these actions was proposed in accordance with the Glasfaser-Flugzeug-Service GmbH Technical Note (TN) 201-33, dated March 4, 1996. Based upon the difficulty in obtaining the above-referenced technical note for U.S. operators of the affected airplanes, the FAA is revising the proposal to include an AD appendix which incorporates the Accomplishment Instructions and Figures of the Glasfaser-Flugzeug GbmH Technical Note TN 201-33, dated March 4, 1996.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

The FAA's Determination

After careful review of all available information related to the subject presented above including the referenced service information, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed, except for the addition of the appendix described above and minor editorial corrections.

Cost Impact

The FAA estimates that 108 sailplanes in the U.S. registry will be affected by this AD; that it will take approximately 4 workhours per sailplane to accomplish the inspection, repair and

modification; or that it will take 3 workhours per sailplane to inspect and replace the lever shaft; and that the average labor rate is estimated to be approximately $60 an hour. Material cost for the modification is approximately $10 per sailplane, and a replacement shaft part costs $140 per sailplane. Based on these figures, the total cost impact of this AD on U.S. operators is estimated to be $27,000 ($250 per sailplane) if all shafts are modified, or $34,560 ($320 per sailplane) if all shafts are replaced. This figure is based on the presumption that no affected sailplane owner/operator has accomplished the inspection or modification.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES".

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 USC 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive (AD) to read as follows:

97-24-06 GLASFLUGEL: Amendment 39-10213; Docket No. 96-CE-35-AD.

Applicability: Models Standard Libelle and Standard Libelle 201 B Sailplanes (all serial numbers), certificated in any category.

NOTE 1: This AD applies to each sailplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For sailplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated in the body of this AD, unless already accomplished.

To prevent cracks in the aileron operating lever's actuating shaft welded seams, which, if not detected and corrected, could cause loss of control of the sailplane, accomplish the following:

(a) Within the next 30 calendar days after the effective date of this AD, inspect for cracks in the paint of the aileron operating lever's actuating shaft welded seams using a magnifying glass (2x minimum) and a flashlight, and if there are cracks in the paint, then prior to further flight, remove the actuating shaft and perform a dye-penetrant inspection for cracks in accordance with Method 1 in the Accomplishment Instructions section and Figure 1 of the Appendix to this AD.

(1) If cracks are seen in the actuating shaft, prior to further flight, either:

(i) Repair any cracked welded seams, and modify the shaft in accordance with Method 2 of the Accomplishment Instructions and Figure 2 in the Appendix of this AD; or,

(ii) Remove and replace the shaft with a new Glasflugel reinforced shaft in accordance with Figure 1 and Method 3 in the Accomplishment Instructions in the Appendix of this AD.

(2) If no cracks are found, within the next 8 calendar months after the inspection required by paragraph (a) of this AD, either:

(i) Modify the aileron operating lever's shaft in accordance with Method 2 of the Accomplishment Instructions in the Appendix of this AD; or,

(ii) Remove and replace the shaft with a new Glasflugel reinforced shaft in accordance with Method 3 in the Accomplishment Instructions and Figure 1 in the Appendix of this AD.

NOTE 2: The FAA recommends that the shafts be finished with zinc-chromate primer and paint with a grayish-green shade.

(b) After completing any action described in paragraph (a) or any sub-paragraph of (a) in this AD, prior to further flight, check and adjust the aileron deflection range in accordance with the "Remarks" paragraph in the Accomplishment Instructions in the Appendix of this AD.

(c) Accomplishing all of the actions specified in the Accomplishment Instructions section of Glasfaser-Flugzeug Service GmbH Technical Note 201-33, dated March 4, 1996, incorporates the intent of this AD. No further action is required.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the sailplane to a location where the requirements of this AD can be accomplished.

(e) An alternative method of compliance or adjustment of the compliance times that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Small Airplane Directorate.

(f) Information related to this AD may be examined at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri.

(g) This amendment (39-10213) becomes effective on March 13, 1998.

Appendix to AD 97-24-06
Aileron Actuating Shaft

Accomplishment Instructions
Method 1:
NOTE: The term "WIG-inert protective atmosphere welding system" used within the Appendix text has the U.S. equivalent of Tungsten Inert Gas (TIG) welding system.

Using a magnifying glass (2x minimum) and a flashlight, inspect the aileron actuating shaft in the fuselage (see Figure 1) near the welding seams for cracks in the paint. If there is any cracked paint on the actuating shaft, prior to further flight, remove the actuating shaft and inspect for cracks in the shaft and welding seams using a dye-penetrant method. If there are no cracks or any other damage, flying operation can continue until the accumulation of 8 calendar months after the initial inspection required by this AD, at which time Method 2 or Method 3 shall be accomplished. If cracks are found, prior to further flight, accomplish Method 2 or Method 3.

NOTE: In Figure 2, the doubler has physical dimensions of:
90 mm x 12 mm x 1 mm, with the ends having a radius of 6 mm.

Method 2:
Remove all paint. Weld (grove welding) all cracks. Weld the joints with the WIG-inert protective atmosphere welding system (wolfram inert gas welding system) with welding material 1.7734.2. Weld the plates (position 7) to the actuating shaft according to Figure 2. Finish the actuating shaft with primer and paint (paint type RAL 7003). Reinstall the aileron actuating shaft.

NOTE: Method 2 in the Appendix refers to welding material 1.7734.2. The FAA and the LBA were unable to determine the U.S. equivalent to this material. The recommended options would be to order the original part from the manufacturer, order the welding material from the manufacturer, or order welding material 1.7734.2 from Germany, Italy or France.

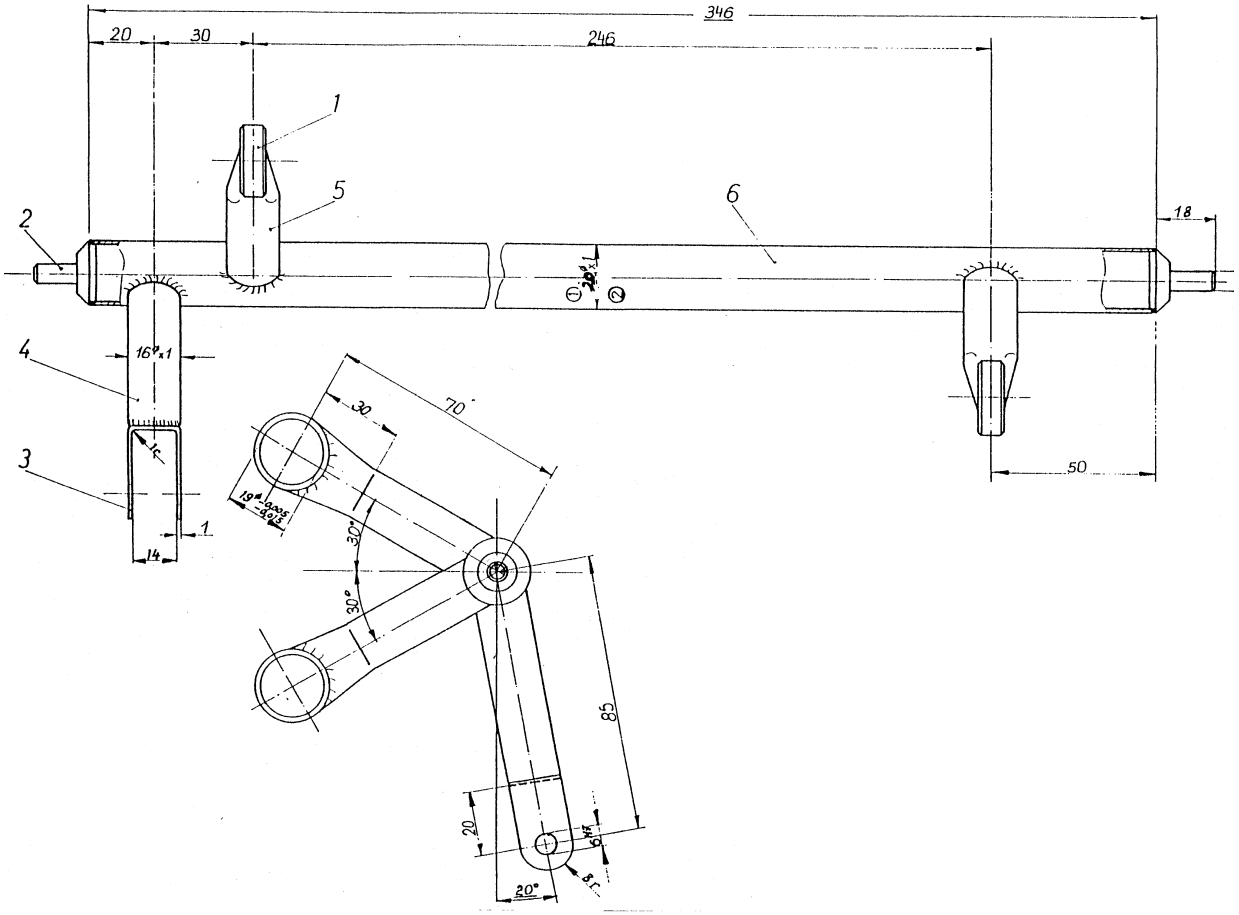
Method 3:
As an alternative to Method 2, replace the original actuating shaft with a new reinforced shaft according to Figure 1.

Mass and balance: Not Affected

Remarks:
For rigging and derigging procedures, refer to the flight manual, page E12. After accomplishing repairs according to Method 2, or replacement of the actuating shaft according to Method 3, the aileron deflections must be checked. Plates, welding material, and spare parts as mentioned are available from the manufacturer.

Appendix to AD 97-24-06
Aileron Actuating Shaft

FIGURE 1



Appendix to AD 97-24-06
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FIGURE 2